

CLAIMS

What is claimed is:

1. Drier for objects, particularly for vehicle bodies, comprising
 - a) a housing, comprising a drying chamber capable of accommodating objects to be dried;
 - b) a connection for intake air;
 - c) a connection for exhaust air;
 - d) at least one catalytic radiator which, in turn, comprises:
 - da) at least one connection for combustion gas;
 - db) a catalytically active layer to which the combustion gas is supplied;
 - dc) at least one connection for combustion air, connected to the catalytically active layer via an air duct;
- characterized in that
 - e) the connection of the drier for intake air is connected exclusively to the connection of the catalytic radiator for combustion air, in such a way that, apart from unavoidable leakages of the housing, all the intake air is routed as combustion air via the catalytic radiator; and
 - f) the catalytic radiator is of heat resistant design, such that it does not require air cooling.
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2. Drier according to claim 1, characterized in that the catalytic radiator has a connection via which exclusively intake air is supplied to it.

3. Drier according to claim 1, characterized in that the catalytic radiator has a connection which is connected to a premixer in which combustion gas and intake air are mixed together.
- 5 4. Drier according to claim 1, characterized in that it comprises at least one blower by means of which air can be circulated in the drying chamber.
- 10 5. A multi-stage drier, comprising at least two drier stages as described in claim 1, including at least a respectively upstream stage and a respectively downstream stage, wherein the exhaust-air connection of the respectively upstream stage is connected to the intake-air connection of the respectively downstream stage.
- 15 6. Method for operating a drier for objects, particularly vehicle bodies, in which
- a) the objects to be dried are brought into a drying chamber in the housing of the drier;
 - b) in the drying chamber, the objects to be dried are exposed to an infrared radiation generated by a catalytic radiator to whose catalytically active layer combustion gas and combustion air are supplied; and
 - c) intake air is continuously supplied to, and air continuously extracted from, the
- 20 drying chamber;
- characterized in that

- d) all the intake air supplied to the drying chamber, apart from unavoidable leakages of the housing of the drier, is routed as combustion air via the catalytically active layer of the catalytic radiator; and
 - e) a catalytic radiator is used which is of heat resistant design, such that it does not require cooling.
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7. Method according to claim 6, characterized in that at least a portion of the intake air is already mixed with the combustion gas before entering the catalytic radiator.
- 10 8. Method according to claim 6, characterized in that the exhaust air extracted from a first stage of the drier is supplied as intake air to a downstream stage of the drier.
9. Method according to claim 6, characterized in that the objects to be dried are additionally heated by convection, by a circulated air flow.
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10. Method according to claim 9, characterized in that the ratio of heat applied to the objects to be dried by radiation and by convective heating is variable.